

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1 – 25. (Canceled)

26. (Currently Amended) Process for the preparation of a thermoplastic elastomer comprising the steps of:

- (a) performing a first dynamic vulcanization stage ~~to form a partially vulcanized rubber concentrate~~ by melt-mixing a1) ~~[[an]]~~ at least one elastomer, a2) a first thermoplastic polymer, and a3) a first curing agent under dynamic vulcanization conditions to form a partially vulcanized rubber concentrate, and thereafter
- (b) performing a second dynamic vulcanization stage ~~to form the thermoplastic elastomer~~ by melt-mixing (b1) the partially vulcanized rubber concentrate formed according to step (a) with an added amount of (b2) a second thermoplastic polymer ~~[[,]]~~ and (b3) a second curing agent under dynamic vulcanization conditions to form the thermoplastic elastomer, wherein

the first curing agent a3) and the second curing agent b3) are each independently selected from the group consisting of phenolic resins, siloxane compounds, peroxides, sulfur, sulfurous compounds and mixtures thereof.

27. (Currently Amended) Process according to claim 26, wherein ~~[[steps]]~~ the first and second vulcanization stages (a) and (b), respectively, are practiced independently of one another.

28. (Currently Amended) Process according to claim 26, wherein [[steps]] the first and second vulcanization stages (a) and (b), respectively, are practiced sequentially in the same processing equipment.

29. (Currently Amended) Process according to claim 26, wherein the first dynamic vulcanization [[step]] stage (a) to form the partially vulcanized rubber concentrate comprises melt-mixing:

- (i) 30 to 95 parts by weight of the at least one elastomer;
- (ii) 5 to 50 parts by weight of the ~~at least one~~ first thermoplastic polymer;
- (iii) 0.1-10 parts by weight of the first curing agent; and
- (iv) optionally oil, wherein
the sum of the parts by weight of components (i)-(iv) is 100.

30. (Previously Presented) Process according to claim 26, wherein the at least one elastomer is EPDM or EPM.

31. (Previously Presented) Process according to claim 26, wherein each of the first and second thermoplastic polymers, which may be the same or different, is at least one thermoplastic polymer selected from the group consisting of thermoplastic polyolefin homo- and copolymers, reactor TPO, polyamides, polycarbonate, polyesters, polysulfones, polylactones, polyacetals, acrylonitrile-butadiene styrene (ABS) resins, polyphenylene oxide (PPO), polyphenylene sulfide (PPS), styrene-acrylonitrile (SAN) resins, polyimides, styrene maleic anhydride (SMA) and aromatic polyketones.

32. (Currently Amended) Process according to claim 26, wherein [[the]] each of the first and second thermoplastic polymers, which may be the same or different, is a thermoplastic polyolefin homopolymer or a thermoplastic polyolefin copolymer.

33. (Previously Presented) Process according to claim 26, wherein each of the first and second thermoplastic polymers is a polypropylene homopolymer.

34. (Previously Presented) Process according to claim 26, wherein the elastomer in the partially vulcanized rubber concentrate has a gel content higher than 50%.

35. (Previously Presented) Process according to claim 26, wherein the elastomer in the partially vulcanized rubber concentrate has a gel content higher than 70%.

36. (Currently Amended) Process for the preparation of a thermoplastic elastomer according to claim 26, wherein the second dynamic vulcanization ~~stage according to step~~ (b) is practiced by melt mixing:

- (1) 10-90 parts by weight of the partially vulcanized rubber concentrate;
- (2) 90-10 parts by weight of the second thermoplastic polymer;
- (3) 0.1-10 parts by weight of the second curing agent, and
- (4) optionally oil and/or additives, wherein
the sum of the parts by weight of components (1)-(4) is 100.

37. (Currently Amended) Process according to claim 26, wherein each of the first and second curing agents, ~~which may be the same or different,~~ is the same curing agent ~~at least one~~ selected from the group consisting of phenolic phenol resins, siloxanes, ~~[[and]]~~ peroxides and mixtures thereof.

38. (Previously Presented) Process according to claim 26, further comprising melt mixing oil when conducting at least one of the first and second dynamic vulcanization according to steps (a) and (b), respectively.

39. (Previously Presented) Process according to claim 26, further comprising melt mixing additives when conducting at least one of the first and second dynamic vulcanization according to steps (a) and (b), respectively.

40. (Previously Presented) Process according to claim 26, wherein the first curing agent a3) and the second curing agent b3) are each independently selected from the group consisting of phenolic resins, siloxanes, peroxides and mixtures thereof.

41. (New) Process according to claim 31, wherein each of the first and second thermoplastic polymers is the same.

42. (New) Process according to claim 41, wherein each of the first and second thermoplastic polymers is a polypropylene homopolymer.